Amendments to the Claims:

1.   (Currently Amended) A method for decoding a video stream,

comprising:

A method for decoding a video stream, comprising:

saving the coming block of compressed video to the first on-chip

temporary storage device, applying the variable length decoding method to

decode the video bit stream and block by block recovering the DCT

coefficients and dequantizing the coefficient by multiplying the quantization

table and inverse transforming the DCT coefficients to matrix of pixel values;

saving the decompressed block of pixels into the second on-chip

temporary storage device;

~~VLD decoding video stream and maintaining a DCT coefficient table in a~~

~~storage medium, wherein the DCT coefficient bit stream table includes pairs~~

~~composed of DCT coefficient bit streams and bock pixel data, the block pixel~~

~~data providing inverse DCT information of the corresponding DCT coefficient~~

~~bit stream;~~

~~looking up the DCT bit stream table when receiving a VLD decoded~~

~~DCT input stream to find whether the new DCT coefficient matrix matches a~~

~~DCT coefficient matrix; and~~

~~utilizing the block pixel data corresponding to the matched DCT~~

~~coefficient bit stream to generate inverse DCT data of the DCT input bit~~

~~stream if the DCT bit stream table includes the matched DCT coefficient bit~~

~~stream.~~

looking up incoming compressed block of pixel data to the blocks of

received pixel data saved in the first temporary storage device and identifying

whether any of the previous block is equivalent to the coming block; and

if a "Match" happens:

utilizing the block pixel data saved in the second temporary storage

device corresponding to the matched block of bit stream to represent the block

of decompressed bit stream,

otherwise, decompressing the block of bit stream according to the

normal decompression procedure.

2. (Currently Amended) The method of claim 1, further comprising the

steps of decoding the DCT bit stream and saving the decoded result into the DCT

bit stream table if the DCT input stream fails to match any DCT reference bit

stream in the DCT bit stream table.

The method of claim 1, further comprising the steps of decoding the DCT bit

stream and saving the decoded result <u>of block of pixels</u> into <u>the second</u>

<u>temporary storage device and saving the DCT coefficients into the first</u>

<u>temporary storage device</u> if ~~the DCT input stream~~ <u>the compressed block</u> fails to

match any DCT <u>block</u> ~~reference bit stream in the DCT bit stream table~~ <u>of the</u>

<u>previous blocks</u>.

3.   (Currently Amended) The method of claim 2, further comprising the

step of ~~compressing the decoded result saved in the DCT bit stream~~ <u>saving the</u>

<u>decompressed result of DCT bit stream into an on-chip second temporary buffer</u>.

4.   (Currently Amended) The method of claim 1, wherein the <u>coming</u> DCT

~~reference~~ <u>input</u> bit stream <u>and</u> ~~the DCT reference bit stream are matched~~ <u>one of</u>

<u>the previous blocks of DCT coefficients</u> are identical, <u>then, the decoded block of</u>

<u>pixels is used to represent the coming block</u>.

The method of claim 1, wherein the DCT input bit stream and the DCT

reference bit stream are matched if the DCT input bit stream and the DCT

reference bit stream are identical.

5.   (Currently Amended) The method of claim 1, wherein the DCT input

bit stream and the DCT reference bit stream are matched if a difference ~~of~~

<u>between</u> the DCT input bit stream and the DCT reference bit stream is lower then

a predetermined ~~threshold~~ **tolerance**.

6.   (Currently Amended) The method of claim 1, further comprising a step

of representing a target block with a decompressed block pixels~~²~~ within neighboring

blocks if a compressed stream of the previously saved block ~~streams~~ <u>in the first</u>

<u>temporary storage device</u> is identical to a target block stream.

7.   (Original) The method of claim 1, wherein a threshold value is

compared to a weighted difference of compressed DCT coefficients of at least one

previously saved block and a target block for determining the similarity.

8.   (Original) The method of claim 7, wherein a weighted difference

between at least one previously saved block stream and a target block stream is

applied to determine whether a lossy decoding is applied in decompressing the video

bit stream.

9.   (Original) The method of claim 8, wherein one of previously saved decoded blocks is selected to represent a target block if a weighted sum of DCT coefficient difference between a target block and the closest block saved in the storage is less than a predetermined threshold;

10.   (Cancelled)

11.   (Currently Amended) The method of claim 1, wherein a block of decompressed bit stream is compressed before being stored to the second temporary storage a buffer for future representing new targeted block stream.

12.   (Original) The method of claim 1, wherein a block of decompressed bit stream is compressed through a lossless compression mechanism before being stored to a buffer an on-chip secondary temporary buffer and is decompressed for future representing a new targeted block stream.

13.   (Canceled)

14.   (Canceled)

15.   (Canceled)

16   (Currently Amended) An apparatus for decoding a video stream,

comprising:

a bit stream decoding unit including a VLD, variable length deciding

and reconstructing the video bit stream to DCT matrix and a DeQuantization unit

multiplying the DCT matrix to inverse transforming and recovering the block of pixel

matrix;

a the first on-chip storage device for storing compressed video data stream and

the second on-chip storage device for storing the corresponding decompressed pixel

data of at least one previous block ;

a circuit of comparing a coming compressed stream to at least

one previously saved stream; and

a circuit of selecting one of previously saved decoded blocks to represent a

targeted block if a the targeted block is identical to one of the previously saved

blocks.

17.   (Currently Amended) The apparatus of claim 16, wherein an output of

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a comparator is used to select the decoded pixels <u>stored in the on-chip second</u>

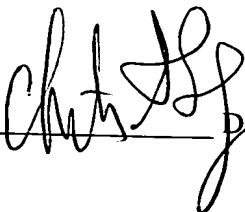<u>temporary buffer</u> to represent the target block pixels.

18.   (Original) The apparatus of claim 16, wherein decoded block pixels

represent the target block pixels by copying the decoded block pixels.

19.   (Canceled)

20.   (Currently Amended) The apparatus of claim 13, wherein in

decompressing an I-type frame ~~and~~ <u>or a</u> JPEG still pictures, one of previously

decoded and saved blocks is selected to represent the target block.

21.   (Canceled)

Respectfully submitted,

By: _____ Date: April 10th , 2008

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